REMARKS/ARGUMENTS

Claims 1, 3-7, 9, and 10 are pending in this application. Claims 1, 3-7, 9, and 10 had been rejected.

Claims 1 and 3-6 had been objected to. Claim 1 has been amended to overcome these objections.

Claims 1 and 7 have been amended for clarity.

Claims 1, 3-4, 6-7, 9, and 10 had been rejected under 35 U.S.C. §102(b) over Luck et al, US 5,257,182. This rejection is respectfully traversed for the following reasons.

It is well established that a claim is anticipated under 35 U.S.C. §102, only if each and every element of the claim is found in a single prior art reference.[1] Moreover, to anticipate a claim under 35 U.S.C. §102, a single source must contain each and every element of the claim "arranged as in the claim."[2, 3] Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference.[4] If each and every element of a claim is not found in a single reference, there can be no anticipation.

Claim 1 comprises the element of a software module sending control signals to the positioning means, wherein the control signals cause a motion of the positioning means, wherein the motion of the positioning means compensates for changes in the observable image of at least some features of the microscopic specimen, wherein the compensation changes the at least some features in the observable image towards their prior state in time, and wherein the control signals are determined on the basis of an inference method from the statistical signature parameters of at least two sequentially recorded multidimensional images.

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[1] Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

[2] Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

[3] Lewmar Marine Inc. v. Barient, Inc., 827 F.2d 744, 747, 3 U.S.P.Q. 2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988).

[4] Titanium Metals Corp. v. Banner, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

The present invention compensates for the temporal changes in the view of the specimen which may be caused by the movement within the specimen (see, for example, [0027]) or by changes in the observation conditions (see, for example, [0025]). This compensation is aimed at maintaining a constant observable image of the features that interest the observer ([0025}). The process of compensation is a process of continuous reestablishing of an image that has been seen by the user at some earlier point in time.

For example, if the user sees a feature of interest in the center of the image window in the beginning of the observation, the invention functions to maintain as best as possible the position of the feature in the center of the image window, while the feature changes position within the specimen. The permanence of the feature's position in the image window helps to better observe the image.

This invention is useful for specimens that change with time and/or for observation conditions that change with time; this invention compensates for these temporal changes and stabilizes for the viewer the observed image of the features of interest.

Luck scans a specimen at a low resolution (30 in Fig. 2 of Luck) to determine where the specimen is located within a slide at to determine the focal planes for those areas (col. 3, line 66 of– col. 4, line 5). Then a high resolution scan is performed on the specimen and the results of this scan are analyzed to determine where malignant cells are located (35 in Fig. 2; col. 4, lines 6-26). Finally a high resolution rescan is performed is performed for the best candidates for the malignant cell locations; the results of the high resolution rescan are stored and/or presented to the user (40 in Fig. 2; col. 4, lines 27-39).

The Examiner equates changing at least some features in the observable image towards their prior state in time of the present invention with Luck's filtering out of different object characteristics to determine cancerous cells, at col. 8, lines 16-62 (see the pending Office Action, page 3, bottom three lines).

Contrary to the present invention, Luck's image processing does not manipulate the features of interest to make them more similar to the way they looked at an earlier point in time. Luck's filtering changes the appearance of some features and eliminates others, but does not make them appear any more like the way they appeared any time before.

Furthermore, the results of the image processing in Luck are not visible to the user; the purpose of the image processing is to locate the cells for subsequent rescan and user sees only the rescan results.

Also, Luck simply does not work on the type of specimens and under the type of conditions for which the present invention is designed. Luck assumes that the features specimen stays stationary between the scans 30, 35, and 40; if the cells in the specimen change their locations between the scans 35 and 40, the results of image analysis performed after the scan 35 would be useless. The present invention, on the contrary, is designed for compensating for changed occurring within the specimen.

Also contrary to the present invention, the image change in the aforementioned portion of Luck cited by the Examiner does not occur as a result of change in the positioning means. The image change referred to in that part of Luck is not caused by positioning means, the image change takes place inside the processing system 22 (see Fig. 1 of Luck) while the positioning means reside in numerals 14 and 18 in Fig. 1 of Luck (as the Examiner notes on lines 15-16 of page 3 of the pending Office Action).

The element of a software module sending control signals to the positioning means, wherein the control signals cause a motion of the positioning means, wherein the motion of the positioning means compensates for changes in the observable image of at least some features of the microscopic specimen, wherein the compensation changes the at least some features in the observable image towards their prior state in time, and wherein the control signals are determined on the basis of an inference method from the statistical signature parameters of at least two sequentially recorded multidimensional images, is not taught or suggested in Luck. Therefore, Claim 1 is patentable over Luck under 35 U.S.C. §102(b) and should be allowed.

The above-presented argument also supports patentability of Claims 3-4, 6-7, 9, and 10. Allowance of the referenced Claims is respectfully solicited.

Claim 5 had been rejected under 35 U.S.C. §103(a) over Luck in view of Soenksen, US 6,711,283 B1. This rejection is respectfully traversed for the following reasons.

For an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a prima facie case of obviousness. The Patent Office must meet the burden of establishing that all elements of the invention are disclosed in the cited publications, which must have a suggestion, teaching or motivation for one of ordinary skill in the art to modify a reference or combined references.[5] The cited publications should explicitly provide a reasonable expectation of success, determined from the position of one of ordinary skill in the art at the time the invention was made.[6]

Claim 5 comprises the element of a software module sending control signals to the positioning means, wherein the control signals cause a motion of the positioning means, wherein the motion of the positioning means compensates for changes in the observable image of at least some features of the microscopic specimen, wherein the compensation changes the at least some features in the observable image towards their prior state in time, and wherein the control signals are determined on the basis of an inference method from the statistical signature parameters of at least two sequentially recorded multidimensional images.

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[5] In re Lee, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

[6] In re Fine, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); Amgen v. Chugai Pharmaceuticals Co., 18 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Soeksen does not mention, teach or suggest compensating for changes in the observable image or other parts of this element.

As explained hereinabove, this element is not taught or suggested in Luck, Soenksen, or their combination. Therefore, Claim 5 is patentable and nonobvious over Luck and Soenksen under 35 U.S.C. §103(a) and should be allowed.

It is believed that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited in this case. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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